Journey to California
Feb. – May. 1885.

BIRTWELL & PANIN,
13 Harvard Row, - - Cambridge, Mass.

Masses.

Meteorium nigricans. Orizaba
" Deppii vel heteroclada ??

Orthotrichum cylindrocarpum Santa Cruz
Orthotrichum speciosum Lesq. "
neo. Yosemite.
Orthot. Sturmii Hoppe & Hornsch. "
Grimmia Californica Yosemite
Grimmia apocarpa Sull. Yosemite.
Barbula Mulleri Br. & Sch. Yosemite
Neckera Menziesii Drummond. "
Hypnum Nevadense, Lesq. "
Grimmia rees pulvinata. San Diego

Hypnum stoloniferum Hook. Felton. Cal.

Hypnum Menziesii Mueller. Santa Cruz

Alsia abietina " "

Alsia Californica Sull. " "

Bryum argenteum Orizaba

Mnium rostratum "

Hypnum callichroum Brid. vel aff. "

Hypnum abietinum Monterey.

Hepaticæ

8. Lichlobea conicolata Santa Cruz
11. aneura " "
13. Fimbriaria californica
antheceros
5. Jerallbea landeri austin Monterey
9. Metzgeria furcata.
10. Fossombronia
longiseta

Plagiochila crispata. Gollache.

Bryopteris sp. Orizaba

Fimbriaria Californica, Hampe Santa Barbara San Diego

Plagiochasma remotatum Gollache.
Orizaba

Fimbriaria elegans Spreng. Cordoba

Jungermannia nuda Lind & Gottsche

Marchantia tholophora - Bisch

Cordova

Andreaeaceae fissiformis austin

Yellow

Frullania semivillosa

Arizaba Lind. & Gottsche.

Frullania Wrightii Aust.

Las Vegas

Jungermannia rubra Gottsche.

Santa Cruz

Plagiochasma cremulatum Gottsche

Orizaba

Fungi

Dictemos porum Graminum

Santa Cruz

aecidium commune

Lecotium Texense. El Paso

Peziza Santa Cruz

Exidia glandulosa.

on Pinus insignis. Monterey

Puccinia Polygonorum.

on P. aviculare. Santa Cruz

Apr. 1885. uredo

Puccinia Rubigo-vera

on Hordeum murinum

Santa Barbara. Apr. 1885

Puccinia evadens

on Baccharis Santa Cruz May Sept. 1885

Coleosporium on Senecio. Santa Cruz

Puccinia vexans. El Paso

Puccinia Pringlei. Uredo. Monterey

Peridermium Cerebrum
on C. bistorta. Monterey

Uromyces Eriogoni. Santa Barbara
on E. parvifolium

Uromyces Yampae. on Eriogonum

Puccinia Hieracii
on S. aetolyra. Santa Cruz

Uredo Hyalopodites
Hieracii aetolyrae Santa Cruz

Pestalozzia Guepini
on Vaccinium. Monterey. May 1885

Gloeosporium Camelliae Nees
on tea leaves. Santa Barbara
March 30, 1885.

Ramularia? young
on Ribes speciosum. Laurel Cañon
Los Angeles

Phacidium Medicaginis on M. sativa
Los Angeles.

Algae.

Botrydium granulatum

San Diego.

Chrodepus flava. Kg. Monterey

Chrodepus villosum. Arizona

Hassallia byssoidea Arizona.

Chrodepus Blasdalii? on bark and roots, Santa Cruz.

Cylindrospermum

on cliffs Santa Cruz,

Grenta pohlei (on fence, Santa Cruz, Anderson)

Conferva (on rocks near Moore's Beach by fresh water) tenerrima or affinis,

Nostoc attached to stones in brook near Yosemite Falls.

Monoblepsa thermalis J. Ag

Marine Algae.

Gratelouspia Cutleriae. G. Ag. Santa Barbara & Santa Cruz.

Callithamnion Pikeanum. Harva Santa Cruz.

Mesogloia Andersonii, Santa Cruz & Sta Barbara

Centroceras Eatonianum.

Neurogloeum Andersonianum

Callithamnion daxyaiides, Santa Cruz.

Amphiroa Orbignyana

Nitophyllum violaceum.

Microcladia borealis

Polysiphonia Woodii.

Chondria Abietina Kutz.

Halosaccion Hydrophora

Gracilaria confervoides.

Nitophyllum Hoppechtcanum,
Hucces fasticiatus,
Dictyoneuron Californicum
Prionites Andersonianus
Gymnogyrus linearis
" Leptophyllus
Plocamium violaceum. Monterey
Nemastoma Californicum
Nemalion? Andersonii
Postelsia.

California Lichens.

Collected Feb. — May. 1885.

Roccella leucophaea
" fuciformis
Ramalina evoluta
" cruchis
" Nomalea
" reticulata
" Menziesii
Cetraria Californica
" glauca Stenophylla
" ciliaris
" juniperina
Usnea barbata
Evernia vulpina.
" prunastri
Theloschistes chrysophthalmus
" v. flavicans
Parmelia Conoto
" perforata
" lanata
" caperata
" conspersa
" saxatilis
" olivacea
" physodes.

Physcia crinalis
" conosa
" leucomela
" ciliaris
" setosa
" pulverulenta
" stellaris
" hispida
Stieta crosa
" aurata
" pulmonaria
" tomentosa
" antrosa fi
Peltigera polydactyla
" scutata
" rufescens
Ecdocarpis cum Guepinii
Heppia Despreauxii
Pannaria cephidiota
" molybdaea
" lanuginosa
Omphalaria mean umbella
" Arizonica
" sp.?
Collema corcophorum
" nigrescens

Lecanora frumentaioides
" atrocinctum
" muscicola
" marginellum
" palmatum
" myrrhorum
Placodium coralloides

Lecanora subfuscata
" fuscis
" pallida
" atra
" varia
" Brunonis?
" xanthophana
" Schleicheri
" spurigena
Rinodina radiata
" exophthalmoides v. confragosa
Pertusaria leioplaca
" pustulata
" planicunda
Urceolaria scruposa
Thrombium albicans

Cladonia pityrophora
" pyxidata
Biatora globulosa
" decipiens
" sanguineo-atra
" quernea
" trisepta var.
" mixta v. Pacifica
" effusa v. arcuatina
Buellia halonia
" aidalea
Phaeographa fuliginis n. sp.
Opegrapha varia
" Barbarica n. sp.
Arthonia impolita
Endocarpon miniatum
" hepaticum
Sphaerophorus globiferus
Acolium tigillare.
" Bolanderi.
" Tarloviï n. sp.
Mycoporum sporellum Nyl.

Pertusaria planicunda
Ramalina cinita
arthonia impolita.
Aspicilia barbatula
Endocarpon pusillum Guepini
Endocarpon miniatum
Sphaeropsis globulosa
Buellia ocellata
var. arcellina
Endocarpon hepaticum
Buellia nidulans
Evernia divaricata.
Parmelia lepidiota.

Lep. Dryas Iremelloides Orizaba
" alboradiata Yosemite
" Muscerda
" Nyarzpaellura pallidata S.C. Mts
" Mycochroum (Elvs) Fuchsum Las Vegas
Pannaria pannosa Orizaba
" Molybdaea " "
Collema nigrescens S.C.
Cumpholaria Arizonica El Paso
Physcia stellaris S.D. &c.
Parmelia conspersa. S.D.
Sticta pulmonaria
Parm. physodes Buellia
" sorediata Salonica
" olivacea.
Physcia stellaris
Lecanora xanthoplaca
" Hageni
" Schleicheri
Rinodina radiata
Lec. atra. sophodes confragosa
" pruinosa
" varia
Urceolaria
Platygramma cocloloma
Biatora globulifera
" sanguineo-atra
B. quernea. B. bracteata.

Acolium tigillare Physcia
Parmelia Polycauleon
Platygramma

Cet. Nupferm
Cettina yucca S.C. Nuss
" " Nucifera
" Palma Cocos S.C. Nuss
" Peltigera venosa
" Sequoia gigantea Yosemite
" Stictina pulmonacea Oregon
" Usnea "
Physcia adscendens (Ach.) Nyl. Las Vegas
" crinita S.D.
Theloschistes chrysophthalmus Arizona
" " var. flavicans. S.D.
Parmelia Cunata, Yosemite
" colpodota "
" Conspersa.
Physcia pulverulenta Yosemite
Omphalodina rufescens Mabella. Arizona
Omphalaria pulvinata Grand Cañon
Peltigera Dolichorhiza Newhall
Usnea florida var. Hirta Cañon El Paso

Parmelia physodes var. labrosa

Bulbigera glandulosa
Vitis Labrusca
Gladiolus ubrevialata
Mimosa Michauxii
Limnobium Spongia
Asperula Nuttalli
" Lazulaeis
" Ovulaeis.
Killingia pumila
Lepocarpha Macvaughii
Cladium effusum
Helenium nudicarpum
Panicum divaricatum

Pharnosgnus Floridana

Minusops Sideri crescentia

Ilex Cassine Ilex glabra Myrica compacta

Lantana viburnoides

Lycium Carolinianum Amsonia humilis

Solanum Bahamense

" Blodgetti

Rhapsolus vaccose

Bignonia stans

" Tecoma capensis

Renealmia Exaltata

Cordia Sebestena

Plumeria Plumieria

Rosmarinus officinalis

Zanthoxylum Floridanum

Quercus virginiana

" nigra

Ulmus alata

Myrica cerifera

Callicarpa Americana

Ipomaea trifolia.

Journey to Florida

Oct – Nov. 1891.

Phoenix sp. sancd
Casuarina equiset folia. Key West.
Conocarpus erectus. Tampa
" " var. villosus. Key West.
Vitis acida Key West
Vitis palmata Jacksonville
Croton maritimum Orsmond.
Pinus mitis Tallahassee
Eupatorium fœniculaceum
Eupatorium aromaticum
Asperatum littorale K. W
Trilicia paniculata
Corythophora conspicua
Liatris elegans
Liatris tenuifolia
Liatris gracilis

Chrysopsis Mariana
Elephantopus tomentosus
Melanthera hastata
Bigelovia nudata,
Flaveria linearis
Aplopappus divaricatus
Pectocarpus tenuifolius
Solidago stricta
Solidago tenuifolia
Aster concolor
Aster dumosus
Parthenium hysterophorus
Pluchea bifrons
Baccharis halimifolia
" glomeruliflora
Borrichia frutescens
Verbesina virginica
Helenium tenuifolium
Chrysopsis graminifolia
Eclipta alba

Ambrosia hispida
Brevantes verzelas
Polygala lutea
Cassythium
Crotalaria pilosa
" retusa
Erythrina herbacea
Sophora tomentosa
Agati grandiflora
Cantandrina Bonduella
Indigofera subulata
Petalostemon corymbosus
Lespedeza stricta
Acacia farnesiana
Psoralea Onobrum Uncinatum-Colei
Lencena glauca
Desmanthus depressus
Mimosa pudica hispidula
Hyperenum fasciculatum
Gossipium pilosum
Asclepias tuberosa

Rhus Metopium
Ilex glabra
Eugenia buxifolia
Bursera Simaruba
Seymeria tenuifolia
Stachytarpha Jamaicensis
Lippia nodiflora
Andromeda ferruginea
Andromeda nitida
Capraria biflora

Journeys to Florida.

Oct. – Nov. 1891.

Cryptogams.

Selaginella apus Fallahassee
asplenium ebeneum "
azolla Caroliniana Jacksonville.

Museo di Napoli
Pellaea ovata
Pogonatum brevicaule Lyallii
Schlotheimia Sullivantii "
Lejeunia serpyllifolia
Cryphaea glomerata. Kantia Trichomanis
Leptodon trichomitrion
Lejeunia elegantula?
Leucodon julaceus Fallaria dilatata?
Anomodon Americanus. "
Hypnum Canariense.

Florida.

Hamp.

Clavicep purpurea on

Spartina stricta Jacksonville

Hypocrea contorta

Meliola sanguinea E. & E.

Phaeria caryophaga. Tallahassee

Hysterium Hysteroxylon

Melampsora on Pteris

Uromyces Helopsari paniculata. Aiken

Aecidium on Thouinia trilobata K. W.

Puccinia Prunis. opimus

Tallahassee

Trametes Pini

Lenzites tenuis?

Trametes serpens

Lenzites lepideus

Polyporus scruposus

Polyporus ramosus

Polyporus Floridanus

Polyporus parvulus

Hydnum pulcherrimum

Polyporus adustus

Polyporus applanatus

Guepinia Spathularia
Thelephora penicillata
Nematelia nucleata.
Polyporus conchifer on Ulmus alata.
Agaricus procerus.
Stereum pazidium
" bicolor.
" complicatum
Clados porium epiphyce. on Agaricus
Clados porium
& Phoma Leguminum. on Cassia
Sporidesmium concinnum
Phoma Pisicola
Cladosporium personatum
Comularia Persica
Cercospora Persica
Septoria Liquidambaris
Cercospora pallida on Tecoma

Phyllosticta grossulariae on Ribes
Hemiarcyria rubiformis
" serpula.
" clavata.

Thallodea. Lichens. Nov. 1891.

Ramalina rigida. Pablo Beach.
Usnea barbata v. florida
Parmelia cirrhata Tallahassee
Parmelia perlata. Tallahassee
" crinita "
" tiliacea var. dilatata "
Physcia convoluta "
Physcia sorediata "
Leptogium tenuissimum "
Leptogium marginellum "
" coccineum (?)
Collema nigrescens "
Pannaria leucophaea
Peltigera canina Tallahassee
Sticta "
Lecanora granifera.
Placodium diphasium "
Lecanora punctata
Parmelia vaga
Parmelia multipunctata
" conspersa
Thelotrema lepadinum

Diatom cyrtella Tallahassee

Heterothecium Dominicense

"

"

Cencoxanthum

pachycheilum.

Cyrostomum scyphuliferum

Mycaicea

Graphis ? sp.

Graphis Adiantina parasitans

arthonia octrolutea.

arthonia rubella

arthonia Roccellaï platygrapheae

Clodonia mitrula

" pyxidata carpa

" fimbriato var. ?

Coenogonium interpositum

Trypethelium cruentum f. III

" tropicum. " "

" Sprengelii.

Florida. Nov. 1891.

Algae.
Lyngbya Aureo-fusca
Hasidallia Tallahose
Cladophora
Rhodelthia confervoides K. W.
Dasycladus occidentalis K. W.
Halimeda Tuna. K. W.
Spirogyra zygnemaloides
Cladophora membranacea K. W.
Enteromorpha

Zygnema Leiblenii K. W.
Microcoleus clavatus K. W.
Lyngbya aestuarii K. W.
Digenia simplex K. W.
Laurencia papillosa
Cryptonemia undulata?